In the Specification:

Please amend the paragraph on page 1, lines 7-8, as follows:

This application is a continuation of U.S. Application No. 09/496,843, filed February 2, 2000, which claims the benefit of U.S. Provisional Application No. 60/118,397, filed February 2, 1999, hereby incorporated by reference.

Please amend the paragraph starting on page 5, line 7, as follows:

In a preferred embodiment, the digital impairment learning sequence (DIL) transmitted during training corresponds to each of the 256 PCM levels, wherein the training sequences are sent in blocks of L_i samples (where L_i is the length of the DIL corresponding to PCM level i.) The block length is preferably a multiple of ~~6)~~ 6. The training sequence for each block is preferably random (i.e., with respect to the signs of the symbols), although other schemes may be used. The sequence can be repeated for all blocks, or each block may use a different sequence of signs. In the case of an LMS scheme (described below), it is advantageous to include a reference pointer periodically in the transmitted samples. For more information regarding an exemplary digital impairment learning sequence, see the V .90 specification.

Please amend the paragraph on page 6, lines 22-28, as follows:

In the illustrated embodiment, it is preferred that FFE 302 and DFE 306 comprise various filter taps which have been previously trained using a suitable training procedure, for example, a two-point training procedure as set forth in the V.90 specification. For more information regarding such a procedure, See, e.g. U.S. Application Serial No. 08/969,971, filed ~~Sept. 8, 1998~~ November 13, 1997, now U.S. Patent No. 6,332,009. Thus, at this point in process 700, it is

assumed that compensation for analog impairments (216 in **FIG. 2**) has been substantially accomplished.

Please amend the paragraph starting on page 10, line 5, as follows:

For the least-squares solutions, we start to form the necessary_vector or matrix when receiving B_i^l. Specifically, let the DFE 410 taps be $\{b_l\}, l = 1,2,...,L$, the estimated symbols be { *d(i)* } 412, and the estimation errors be { *e(i)* }. Since a typical RBS frame contains 6 samples, we may decompose the incoming samples into six branches (like a single-input/multiple-output (SIMO) system) and define the following vectors of interest,

Please amend the paragraph starting on page 12, line 20, as follows:

The aforementioned estimation algorithm can be easily extended to a FSE+DFE/NPD structure as shown in **FIG.** 5, which further includes a noise-predictor 502 (NPD) and summer 504. Let the taps of NPD ~~414~~ 512 be denoted by $\{q_i\}^N_{i=1}$ and define a new ($L + N$ -1) x 1 filter coefficient vector as